

What is claimed is:

1. A method of treatment for anxiety or an anxiety disorder comprising:  
administering to a patient in need thereof a therapeutically effective amount of an acid sensing ion channel (ASIC) antagonist and a pharmaceutically acceptable carrier.
2. The method of claim 1 wherein the ASIC antagonist is an acid-sensing ion channel 1 (ASIC1) receptor antagonist.
3. The method according to claim 1 wherein said acid sensing ion channel (ASIC) antagonist and said pharmaceutically acceptable carrier is administered by a route selected from the group consisting of: orally, topically, sublingually, buccally, intranasally, rectally and intravenously.
4. The method of claim 1 wherein said anxiety or anxiety disorder is selected from the group consisting of:  
generalized anxiety disorder, panic anxiety, obsessive compulsive disorder, social phobia, performance anxiety, post-traumatic stress disorder, acute stress reaction, adjustment disorders, hypochondriacal disorders, separation anxiety disorder, agoraphobia and specific phobias.
5. A method of treatment for drug addiction comprising:  
administering to a patient in need thereof a therapeutically effective amount of an acid sensing ion channel (ASIC) antagonist and a pharmaceutically acceptable carrier.
6. The method of claim 5 wherein the ASIC antagonist is an acid-sensing ion channel 1 (ASIC1) receptor antagonist.

7. The method according to claim 5 wherein said acid sensing ion channel (ASIC) antagonist and said pharmaceutically acceptable carrier is administered by a route selected from the group consisting of: orally, topically, sublingually, buccally, intranasally, rectally and intravenously.
8. The method of claim 5 wherein said drug addiction is selected from the group consisting of:  
addiction to alcohol, amphetamine, cocaine, heroin, inhalants, morphine, nicotine, opiates, psychoactive drugs, compulsive disorder, depression, headache, and drug or alcohol related withdrawal symptoms.
9. A method of treatment for fear conditioning comprising:  
administering to a patient in need thereof a therapeutically effective amount of an acid sensing ion channel (ASIC) agonist and a pharmaceutically acceptable carrier.
10. The method of claim 9 wherein the ASIC agonist is an acid-sensing ion channel 1 (ASIC1) receptor agonist.
11. A method according to claim 9 wherein said acid sensing ion channel (ASIC) agonist and said pharmaceutically acceptable carrier is administered by a route selected from the group consisting of: orally, topically, sublingually, buccally, intranasally, rectally and intravenously.
12. A drug screening protocol method for identifying therapeutic agents for the treatment of anxiety, an anxiety disorder or drug addiction comprising:  
providing an assay to determine modulation of the acid-sensing ion channel (ASIC) antagonist wherein the therapeutic agent deactivates the acid-sensing ion channel;  
introducing to said assay a compound suspected of being an ASIC antagonist; and  
determining whether ASIC modulation occurs wherein the therapeutic agent that modulates the level of expression of the acid-sensing ion channel is a candidate for the treatment of anxiety, anxiety disorders or drug addiction.

13. The method of claim 12 wherein the ASIC antagonist is an acid-sensing ion channel 1 (ASIC1) receptor antagonist.
14. The method of claim 12 wherein the assay to determine modulation of the acid-sensing ion channel (ASIC) is composed of cells that modulate the binding of an acid-sensing ion channel thereby inhibiting ASIC receptors.
15. A drug screening protocol method for identifying therapeutic agents for the treatment of fear conditioning comprising:  
providing an assay to determine modulation of the acid-sensing ion channel (ASIC) agonist  
wherein the therapeutic agent activates the acid-sensing ion channel;  
introducing to said assay a compound suspected of being an ASIC agonist; and  
determining whether ASIC modulation occurs wherein the therapeutic agent that modulates  
the level of expression of the acid-sensing ion channel is a candidate for the  
treatment of fear conditioning.
16. The method of claim 15 wherein the ASIC antagonist is an acid-sensing ion channel 1 (ASIC1) receptor agonist.
17. The method of claim 15 wherein the assay to determine modulation of the acid-sensing ion channel (ASIC) is composed of cells that modulate the binding of an acid-sensing ion channel thereby activating ASIC receptors
18. A pharmaceutical composition for treatment of anxiety or an anxiety disorder comprising:  
an acid-sensing ion channel 1 (ASIC1) receptor antagonist and a pharmaceutically  
acceptable carrier.

19. The pharmaceutical composition of claim 18 wherein said pharmaceutically acceptable carrier is selected from the group consisting of:

a carrier, diluent, excipient, wetting agent, buffering agent, suspending agent, lubricating agent, adjuvant, vehicle, delivery system, emulsifier, disintegrant, absorbent, preservative, and surfactant suitable for use in said pharmaceutical composition.

20. A pharmaceutical composition for treatment of drug addiction comprising: an acid-sensing ion channel 1 (ASIC1) receptor antagonist and a pharmaceutically acceptable carrier.

21. The pharmaceutical composition of claim 20 wherein said pharmaceutically acceptable carrier is selected from the group consisting of:

a carrier, diluent, excipient, wetting agent, buffering agent, suspending agent, lubricating agent, adjuvant, vehicle, delivery system, emulsifier, disintegrant, absorbent, preservative, and surfactant suitable for use in said pharmaceutical composition

22. A pharmaceutical composition for treatment of fear conditioning comprising: an acid-sensing ion channel 1 (ASIC1) receptor agonist and a pharmaceutically acceptable carrier.

23. The pharmaceutical composition of claim 22 wherein said pharmaceutically acceptable carrier is selected from the group consisting of:

a carrier, diluent, excipient, wetting agent, buffering agent, suspending agent, lubricating agent, adjuvant, vehicle, delivery system, emulsifier, disintegrant, absorbent, preservative, and surfactant suitable for use in said pharmaceutical composition

24. A method of treating a disease state associated with increased pH which comprises: administering to a patient a therapeutically effective amount of an acid sensing ion channel (ASIC) antagonist and a pharmaceutically acceptable carrier.

25. The method of claim 24 wherein the disease state is an anxiety condition selected from the group consisting of:  
generalized anxiety disorder, panic anxiety, obsessive compulsive disorder, social phobia, performance anxiety, post-traumatic stress disorder, acute stress reaction, adjustment disorders, hypochondriacal disorders, separation anxiety disorder, agoraphobia and specific phobias.

26: The method of claim 24 wherein the disease state is a drug addiction selected from the group consisting of:  
addiction to alcohol, amphetamine, cocaine, heroin, inhalants, morphine, nicotine, opiates, psychoactive drugs, compulsive disorder, depression, headache, and drug or alcohol related withdrawal symptoms.

27. A method of preparing a pharmaceutical composition for treatment of anxiety or an anxiety disorder associated with a function of acid sensing ion channel 1 ASIC1, the method comprising:  
(a) identifying a compound that modulates ASIC1;  
(b) synthesizing the identified compound; and  
(c) incorporating the compound into a pharmaceutical carrier.

28. A method of preparing a pharmaceutical composition for treatment of a drug addiction associated with a function of acid sensing ion channel 1 ASIC1, the method comprising:  
(a) identifying a compound that modulates ASIC1;  
(b) synthesizing the identified compound; and  
(c) incorporating the compound into a pharmaceutical carrier.

29. A method of preparing a pharmaceutical composition for treatment of fear conditioning associated with a function of acid sensing ion channel 1 ASIC1, the method comprising:

- (a) identifying a compound that modulates ASIC1;
- (b) synthesizing the identified compound; and
- (c) incorporating the compound into a pharmaceutical carrier.

30. A method of treating a CNS disorder characterized by extracellular pH in the amygdala comprising:  
inhibiting the acid-sensing ion channel 1 (ASIC1) channel in a patient in need of such treatment.

31. The method of claim 30 wherein said CNS disorder is selected from the group consisting of:  
generalized anxiety disorder, panic anxiety, obsessive compulsive disorder, social phobia, performance anxiety, post-traumatic stress disorder, acute stress reaction, adjustment disorders, hypochondriacal disorders, separation anxiety disorder, agoraphobia, specific phobias, addiction to alcohol, amphetamine, cocaine, heroin, inhalants, morphine, nicotine, opiates, psychoactive drugs, compulsive disorder, depression, headache, and drug or alcohol related withdrawal symptoms.